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**Crystallization and Preliminary X-ray analysis of a Corrinoid Methyltransferase from *Moorella thermoacetica*.** W.H. Zhou, J. Habel, A. Das, J. Chang, L.R. Chen, D. Lee, W. Tempel, Z.-J. Liu, L. Ljungdahl, J. Rose and B.C. Wang, Southeast Collaboratory for Structural Genomics, Dept. of Biochemistry and Molecular Biology, Univ. of Georgia, Athens, GA, USA.

Corrinoids play important roles in bacterial C<sub>1</sub> metabolism of *Moorella thermoacetica* (formerly *Clostridium thermoaceticum*) a gram positive, thermophilic, strictly anaerobic bacterium that metabolizes C<sub>1</sub> compounds such as CO<sub>2</sub>/H<sub>2</sub>, CO, formate and methanol into acetate. In this study we isolated and purified a 27 kDa polypeptide from *M. thermoacetica*. Based on its N-terminal amino acid sequence, the protein was identified to be a homolog of MtaC, a corrinoid protein and a component of the methanol:CoM methyltransferase system of methane producing archaea.

Crystals of the protein were obtained by robotic screening for initial crystallization conditions followed by optimization and additive screening. The crystals diffract to 1.6Å using synchrotron X-rays. Here we report the detailed purification, crystallization and preliminary crystallographic analysis of this putative corrinoid methyltransferase from *M. thermoacetica*.

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